

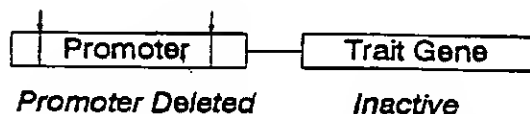
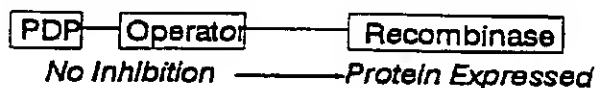


INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : C12N 15/82, 15/60, A61H 5/00 C12N 15/56, 15/55, 15/29 C12N 15/31, 15/11, 15/52	A2	(11) International Publication Number: WO 94/03619 (43) International Publication Date: 17 February 1994 (17.02.94)
(21) International Application Number: PCT/GB93/01605 (22) International Filing Date: 29 July 1993 (29.07.93) (30) Priority data: 9216151.2 29 July 1992 (29.07.92) GB (71) Applicant (for all designated States except US): ZENECA LIMITED [GB/GB]; Imperial Chemical House, 9 Millbank, London SW1P 3JF (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): BRIGHT, Simon, William, Jonathan [GB/GB]; 24 Pound Lane, Marlow, Bucks SL7 2AY (GB). GREENLAND, Andrew, James [GB/GB]; "Tree Tops", Kingswood Court, Braywick Road, Maidenhead SL6 1DA (GB). JEPSON, Ian [GB/GB]; 41 Grays Road, Slough, Berkshire SL1 3QG (GB). PAINE, Jacqueline, Ann, Mary [GB/GB]; 5 Frensham, Crown Wood, Bracknell, Berkshire RG12 3TQ (GB).	(74) Agent: HUSKISSON, Frank, Mackie; ICI Group Patent Services Department, P.O. Box 6, Bessemer Road, Welwyn Garden City, Herts AL7 1HD (GB). (81) Designated States: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>	

(54) Title: IMPROVED PLANT GERMPLASM

Chemical Inducer Absent
- Plant Development Disrupted



(57) Abstract

PDP=PLANT DEVELOPMENT PROMOTER

A recombinant plant genome contains a gene cascade such that it is incapable of producing a mature plant but requires the presence of a chemical inducer. The gene cascade includes a gene switch which is inducible by external application of a chemical inducer and which controls expression of a gene product which affects expression of a second gene in the genome. Survival or development of the plant is dependant upon either expression or non-expression of the second gene and application of the inducer, therefore, selects whether or not the plant develops. In one example the second gene encodes a cytotoxic molecule and expression of that gene is fatal to the plant. In another example the second gene encodes a desirable characteristic which may be excised selectively by applying or withholding chemical application. The second gene may be placed under control of a development regulated promoter.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	FR	France	MR	Mauritania
AU	Australia	GA	Gabon	MW	Malawi
BB	Barbados	GB	United Kingdom	NE	Niger
BE	Belgium	GN	Guinea	NL	Netherlands
BF	Burkina Faso	GR	Greece	NO	Norway
BG	Bulgaria	HU	Hungary	NZ	New Zealand
BJ	Benin	IE	Ireland	PL	Poland
BR	Brazil	IT	Italy	PT	Portugal
BY	Belarus	JP	Japan	RO	Romania
CA	Canada	KP	Democratic People's Republic of Korea	RU	Russian Federation
CF	Central African Republic	KR	Republic of Korea	SD	Sudan
CG	Congo	KZ	Kazakhstan	SE	Sweden
CH	Switzerland	LJ	Licchtenstein	SI	Slovenia
CI	Côte d'Ivoire	LK	Sri Lanka	SK	Slovak Republic
CM	Cameroon	LU	Luxembourg	SN	Senegal
CN	China	LV	Latvia	TD	Chad
CS	Czechoslovakia	MC	Monaco	TG	Togo
CZ	Czech Republic	MG	Madagascar	UA	Ukraine
DE	Germany	ML	Mali	US	United States of America
DK	Denmark	MN	Mongolia	UZ	Uzbekistan
ES	Spain			VN	Viet Nam
FI	Finland				